

UNITED STATES OF AMERICA
POSTAL RATE COMMISSION
WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes

Docket No. R2006-1

PRESIDING OFFICER'S INFORMATION REQUEST NO. 10

(August 4, 2006)

The United States Postal Service is requested to provide the information described below to assist in developing a record for the consideration of the Postal Service's request for a recommended decision on proposed rates, fees and classifications. To facilitate inclusion of the required material in the evidentiary record, the Postal Service is to have a witness attest to the accuracy of the answers and be prepared to explain to the extent necessary the basis for the answers. The answers are to be provided by August 17, 2006.

1. Please refer to witness Van-Ty-Smith Tables 5.1, 5.2, and 5.3 provided in USPS.T.11.Rule.53.Tables.xls showing volume variable costs by subgroup of cost pools for Plants, Post Offices, Stations and Branches, and BMCs. Examining the growth rate in total mail processing costs by subclasses between FY 2005 and FY 2004 shows that certain subclass cost increases appear disproportionate to their volume changes for the same period. For example, Outside County Periodicals volumes declined by .8% while its mail processing costs increased by 5%. Similarly, Standard ECR volume increased by 6% while its corresponding costs went up by 53%.
 - a. Identify the cost drivers including any operational or cost methodological changes that may have led to such increases in Periodicals, Standard ECR, etc.

- b. Please provide an explanation in those instances where the cost pool has increased or decreased more than 10 percent in FY 2005 compared to FY 2004.
2. In response to PSA/USPS-T13-1.c. and 1.d, witness Smith acknowledges that the unit mail processing costs for First-Class presort parcel and ECR parcels seemed to be anomalous, but that he can not explain why. The table below shows that the unit costs have been anomalously high, at least, since R2001-1.

Test Year Unit Attributable Mail Processing Cost (Cents) - Parcels

	<u>R2001-1</u>	<u>R2005-1</u>	<u>R2006-1</u>
First-Class Presort	270.32	288.91	303.81
<u>ECR</u>	<u>205.95</u>	<u>893.44</u>	<u>2405.04</u>

Source: Docket No. R2001-1, USPS-LR-J-53

Docket No. R2005-1, USPS-LR-K-53

Docket No. R2006-1, USPS-LR-L-53

Witness Czigler's response to PSA/USPS/T13-1.b. shows coefficients of variation (CVs), associated with the unit mail processing costs above, for First-Class presort parcels and ECR parcels, of 11.4 percent and 13.4 percent, respectively. Generally, CVs of this magnitude are considered to be high. These unit costs are important because they are used to design parcel rates in ECR and First- Class.

- a. When your analysis showed that the average cost simply of processing each ECR parcel (not counting transportation, delivery, etc.) was \$24.00 did you consider this anomalous? If not, why not? If yes, did you convey your concerns to your superiors? If not, why not?

- b. Did you alert the rate design analyst responsible for ECR of this potential problem? If not, why not?
 - c. Have you undertaken any additional studies or analysis to identify the cause of this outcome? If not, why not?
 - d. Have you undertaken any analysis to develop an appropriate adjustment? If not, why not?
 - e. If no additional studies or analysis has been performed to identify the cause of this outcome, please undertake such an effort and indicate when a discussion of the actual cause can be provided.
 - f. If no appropriate adjustment has yet been identified, please develop such an adjustment.
3. Please identify the source and verify the amount of \$124,054,000 for the FY05 Parcel Sorting Machine (PSM) cost pool as shown in tab PPSM&SPSM of both MPPGBY08PRC.xls in USPS-LR-L-98 and MPPGBY08.xls in USPS-LR-L-52. Please explain the rationale for using accrued costs instead of volume variable cost when calculating the PSM adjustment factor used to adjust Primary and Secondary PSM volume variable costs. Please provide a revised version of the aforementioned spreadsheets if deemed necessary.
4. Please refer to the revised USPS-LR-L-98, spreadsheet MPPGBY08PRC.xls, Tab I which produces a reference error when attempting to update the link to TY08Equipment.xls. The equipment depreciation spreadsheet provided in USPS-LR-L-54 is not the same as the one used in Tab I of MPPGBY08PRC.xls. Please either correct the linkage in MPPGBY08PRC.xls or provide a new TY08Equipment.xls.
5. To develop a rate differential between flats and parcels for Bound Printed Matter (BPM), witness Yeh (USPS-T-38) uses unit delivery costs from witness Miller

(USPS-T-21) that represent only cost segment 7. However, witness Kelley (USPS-T-30) develops a unit delivery cost for BPM flats and parcels that reflects cost segments 6, 7, and 10. Similarly, witness Kelley develops unit delivery costs for other subclasses of mail which have been used by other rate design witnesses, e.g., witness Kiefer's rate design for ECR subclass. Please provide the rationale for using witness Miller's unit delivery cost rather than witness Kelley's.

6. At page 13 of USPS-T-12, Postal Service witness Bozzo states:

My understanding is that the Evolutionary Network Development (END) changes may alter the identities of origin and destinating plants (LPCs and DPCs) and that Regional Distribution Centers (RDCs generally created from existing facilities) will assume ADC and AADC functions. See Docket No. N2006-1, USPS-T-1 at 11-12. However, existing sorting technologies will remain in use, and the general organization of sorting activities appears likely to undergo evolutionary rather than revolutionary changes in the near future. In particular, the basic organization of processing at originating, destinating, and transfer facilities will remain largely intact.

(Footnote omitted.)

This passage seems to understate the degree of change expected by the test year due to the network realignment initiative based on information made public elsewhere about the nature, scope, and timing of that initiative. At the Great Lakes Area Focus Group meeting in Chicago, Illinois, on February 9, 2006, postal management provided a public briefing on its END initiative. It characterized its network realignment initiative as a program that will cause "drastic change" on a national scale, resulting in a standardized and streamlined network. As of February of this year, according to management, the Postal Service's goal was to construct a future network that trims 675 "Function 1" facilities down to 407, consisting of 71 RDCs, 258 LPCs, 60-70 Airport Transport Centers (ATCs), and 5-8 Remote Encoding Centers.

As described by postal management, RDCs are intended to be the “backbone” of a shape-based network, serving as Surface Transport Centers (regional hubs) for mail of all classes, and processing bundles and package mail of all classes. Management reported that by next February, it expects to convert all HASPS to Surface Transfer Centers, and to have 22 to 24 RDCs in place. It plans to convert P&DCs into LPCs and DPCs in two major phases in 2006, with additional phases planned for in 2007. See Docket No. N2006-1, USPS-T-2 (Williams) at 12.¹

If management’s plans are carried out, it raises the prospect that by the 2008 test year, numerous P&DCs will have been upgraded to RDCs, which combine the roles of current ADCs, BMCs, and HASPS. As RDCs, these facilities will be refitted with next-generation tray, bundle, and package sorting equipment, have greatly expanded service areas, and altered internal and external mail flows. See USPS-LR-N2006-1/23. Numerous P&DCs will also have been converted to LPCs, requiring larger capital stocks to process outgoing volumes for a wider service area, while numerous other P&DCs are converted to DPCs, losing processing roles, volumes, and equipment. The Postal Service expects to capture economies of scale in the reconfigured facilities through standardization of its distribution concept, plant layouts, and processing procedures. See the Postal Service’s responses to interrogatories OCA/USPS-36, and Postcom/USPS-T-1-2 in Docket No. N2006-1.

The amount of network realignment that is expected to take place by the test year has a number of implications for mail processing variability modeling. Network realignment is intended to shift enough volume among processing facilities to require facilities to alter their equipment configurations and staffing levels and, thereby, their marginal costs. This appears to conflict with a crucial

¹ The future network that the Postal Service uses for planning purposes is also described in Docket No. N2006-1. As of July, 2006, the Postal Service plans a future network consisting of 419 “Function 1” facilities, 69 RDCs, and 202 LDCs, and 103 DPCs. This is generally consistent with management’s February description of the future network, but it assumes fewer LDCs. See response to Presiding Officer’s Information Request No. 5, Question 7, filed June 9, 2006.

maintained assumption underlying the Postal Service's mail processing variability modeling, i.e., that an operation at a given facility will only experience incremental changes in volumes over the rate cycle. This assumption was invoked to justify using a facility-level fixed-effect model rather than a random effects or ordinary least squares model to estimate variability. In addition to these substantial volume shifts among facilities, network realignment intends to reconfigure numerous facilities to perform fundamentally different tasks in the new RDC-based network. These proposed changes are aimed at increasing the average labor productivity of all postal operations.

If substantial progress toward network realignment is made by the test year, it raises the following questions:

- a. Are the estimating equations on pages 52-53 of USPS-T-12 based on an assumption that the estimated fixed-effect at one facility may differ from the estimated fixed effect at another facility because of persistent differences in the facility's network role, mail mix, mail volume, plant layout, or management practices?
- b. In response to VP/USPS-T12-6 in Docket R2006-1, witness Bozzo states that "the purpose of my analysis was to estimate systemwide elasticities applicable to entire mail processing cost pools." The estimating equations for automated operations on pages 52-53 of USPS-T-12 contain the logarithm of the level of volume, $\ln(\text{TPF})$, and lagged values of this variable, and $\ln(\text{TPF})^2$ and lagged values of this variable. In addition, $\ln(\text{TPF})$ is interacted with $\ln(\text{CAP})$, $\ln(\text{DEL})$, $\ln(\text{WAGE})$ and $\ln(\text{TREND})$. This implies that the elasticity of HRS with respect to TPF depends on all these factors. Doesn't this functional form for this estimating equation imply that the systemwide volume variability estimate for processing operations will depend on the level and mix of mail volume at all the mail processing facilities in the sample, and depend on the distribution of

$\ln(\text{CAP})$, $\ln(\text{DEL})$, $\ln(\text{WAGE})$ and $\ln(\text{TREND})$ across the sample of facilities?

- c. If the answer to the previous questions are affirmative, please state whether a model of mail processing cost variability by individual operation that uses a fixed-effects estimator that includes variables given in the estimating equations on pages 52-53 of USPS-T-12 and computes a systemwide estimate based on the current distribution of mail volume and mix across facilities, and the current distribution of $\ln(\text{CAP})$, $\ln(\text{DEL})$, $\ln(\text{WAGE})$ and $\ln(\text{TREND})$ across facilities, is an appropriate one to predict the impacts of the major network realignment that will be under construction in the test year? If so, why?
- d. As noted above, the Postal Service's mail processing cost variability models contain regressors that are intended to control for unobservable processing plant characteristics that impact the level and sensitivity of labor costs to TPF. The "fixed" effects control for persistent unobservable plant characteristics that impact the level of $\ln(\text{HRS})$. Isn't it true that the Hausman test for the appropriateness of the fixed effects estimator versus the random effects (or ordinary least squares) estimator relies on the fact that the fixed effects can be correlated with the regressors (the right-side variables in the equations on pages 52-53 of USPS-T-12)? Isn't it also true that correlation between the facility-specific random effects and the regressors implies that the probability limit of random effects and ordinary least squares slope coefficient estimates are not the same as the probability limit of the fixed-effects slope coefficient estimates? Further, isn't it true that the Hausman test examines the validity of the lack of correlation between the regressors and the random effects? Therefore, wouldn't a statistically significant difference between the coefficient estimates in the fixed effects and the random effects models be evidence in favor of the alternative hypothesis, i.e., that the facility-specific effects

are correlated with the regressors, including $\ln(\text{TPF})$? The hypothesis testing result reported in USPS-T-12 rejecting the random effects assumption in favor of the fixed effects assumption implies correlation between the fixed effects and $\ln(\text{TPF})$. The cross-sectional correlation between the fixed effects and $\ln(\text{TPF})$, and the fixed effects and other right-hand side regressors, implies that if there were substantial changes in these regressors this would result in a significantly different facility-specific effect under the re-organized postal network. Please resolve this apparent contradiction between assuming that the fixed effects of a facility will be invariant to significant changes in volume, with the hypothesis testing result that indicates that there is cross-sectional correlation between $\ln(\text{TPF})$ and the facility-specific effect.

- e. Given the answer to the previous question, please discuss why a fixed effects estimator is capable of accurately modeling the variability of the mail processing network in the test year when an RDC-based network will be under construction, and many plants will have radically different capital stocks, service areas, and network roles.
7. The FORTRAN programs provided in USPS-LR-L-83, USPS-LR-L-106, USPS-LR-L-84, USPS-LR-L-107, USPS-LR-L-86, and USPS-LR-L-109 when run with the IOCS data set provided in USPS-LR-L-9 produce results different than reported in CADOC05_REP.out. The IOCS dataset referenced by the Postal Service in program CADOC05_REP.f seems to be different than the one submitted in USPS-LR-L-9. For instance, the format statement in CADOC05_REP.f of the above library references identifies more fields than the one used in the CADOC05_PMPC.f program in USPS-LR-L-128 that uses the dataset from USPS-LR-9. Please supply a new dataset that will produce the results given in CADOC05_REP.out or revise the aforementioned program to match the IOCS dataset in USPS-LR-L-9. Please make appropriate revisions to

other programs in the affected library references if necessary. Also, please identify the exact source of all input data files such as COSTPOOL05.PRN.

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Presiding Officer